

# CRS BUILD 6.0 INSTALLATION PROCEDURES

Version 11 - November 10, 1999

*Please note that this installation assumes that the current operational software load is Build 5.0. To determine the version of the software, from the Main CRS menu, click on Help and then click on About. The second line contains the software version. If an earlier version (Build 4.3) is operational, the CRS application must be stopped and the Build 5.0 software must be installed prior to running these procedures. Make no attempt to run these procedures on any software Build other than 5.0.*

*This document also assumes that sites have fully configured all desired transmitters as part of their CRS database before they run these procedures. Sites that wish to add a new transmitter for Spanish broadcast must do so using the approved procedures for transmitter expansion prior to running these procedures. Once the new transmitter has been configured into the CRS database, these procedures may be run to make it Spanish capable.*

*The five procedures described in this document must be performed in the exact order in which they are written. Furthermore, they must be performed exactly as written with no alteration or skipping of steps. Make sure you read through the entire set of procedures before attempting to perform them.*

The brief writeup below gives an overview of the five installation procedures. Additional background information on each procedure is included in the attached **CRS Build 6.0 Installation Procedures Background Information**.

**Procedure 1** - *Check for the existence of a Spanish dictionary and create one if necessary. Stop the CRS application software and replace the existing RJ-45 to DB25M cable adapter. Change the port parameter settings on the Digi LAN Servers (Operational Unit and Spare). Configure the Lantronix LB2 LAN Bridges (Operational Unit and Spare) to filter digital recording broadcast packets. The attached Communications Equipment Modification Note Number 40 (for Electronics*

*Technicians)* describes the exact procedure that must be followed to perform this section.

**Procedure 2** - Install the Build 6.0 software from the installation CD.

**Procedure 3** - Run **ADD\_SPA** utility that will set up the user's ASCII database file for Spanish message generation. **ADD\_SPA** will automatically load Spanish trailer components into the ASCII database file, user-selectively determine which transmitters are loaded for Spanish pronunciation, and user-selectively set up message types for Spanish trailers. The attached document, **CRS Spanish Functionality**, describes in detail the Spanish language capabilities supported in Build 6.0. After running **ADD\_SPA**, reload the database from the ASCII database file. **The person running the ADD\_SPA program must understand which transmitters are to be made Spanish capable and which message types are to be assigned Spanish trailers.**

***It may be necessary to edit the Spanish trailer components that are loaded into the database with ADD\_SPA. Sites may wish to fine tune the rate and/or the volume of the Spanish trailer components. Additionally, sites may choose to modify the contents of the Spanish trailer components. Please refer to Section 5.0 of the attached document, CRS Spanish Functionality, for details about editing the Spanish trailer components. Extreme caution must be used if sites choose to edit the Spanish trailer components in their ASCII database file or through the Message Components window.***

**Procedure 4** - Run procedure to enable LP services capability. The attached document, **Configuring and Using LP Services**, describes in detail the Line Printer capabilities introduced in Build 6.0.

**Procedure 5** - Start the CRS application and activate operator notification for new error message number 254. Upon CRS system restart, if weather message corrections are found in /crs/data/CP/recovery, CRS will generate a new error message number 254. For this message to notify the operator in the Alert Monitor window, the Error Message Format window must be used to select operator notification. The attached document, **Use of Error Message Format Window to Activate Operator Notification**, describes in detail why this procedure must be executed before the operator will be made aware of certain system status messages.

## **Procedure 1 - Check for Spanish Dictionary and Installation of Modified Printer Cable Adapter/LAN Server Changes**

### **PROCEDURE**

1. From the CRS Graphical User Interface (GUI), click on **Maintenance** and then click on **Pronunciation Dictionaries**. The **Dictionary** window is displayed with the Language parameter defaulted to English.
2. Click on the rectangular box to the right of the default Language parameter (English). A pop-up menu appears with the following two choices: English and Spanish.
3. Click on Spanish and the Language parameter displayed is now Spanish.
4. Click on the down arrow to the right of the Dictionary box. If no Dictionary names are displayed, proceed to the next step (step 5). If the list contains one or more names, move the cursor outside the list and click to make the list disappear. Skip to step 8.
5. Move the cursor to inside the Dictionary box and click. The outline of the box will be highlighted in red, which indicates that you may enter text.
6. Enter **SPA** and press the Enter key on the keyboard. The **Save** hot key will have a red box around it.
7. Click on the **Save** hot key and the lower left of the window will return with **Record saved**.
8. Click on the **Exit** hot key to exit the **Dictionary** window.
9. Follow your site's operational procedures for backing up the Word Pronunciation Dictionary files. If you are unsure about this, read pages 7-11 through 7-13 of the CRS System Administration Manual, which explain what needs to be backed up and the importance of doing so. Appendix M, User Dictionary Backup and Recovery Script Files, of the same document contains sample script files that may be used to back up and recover the dictionary files.
10. From the CRS GUI, click on **System** and then click on **Stop System**. The **Stop CRS** window will then be presented. Click on **OK** button to stop the CRS application. Wait until all the System State indicators are down.
11. CRS Prototype sites (Charleston, WV; Birmingham, AL; Pleasant Hill, MO; and Oxnard, CA) that have the Fujitsu printer installed rather than the Epson LX-300 printer may skip step 12. All other sites that have the Epson printer must proceed with step 12.

12. Execute the procedure described in the attached **Communications Equipment Modification Note Number 40 (for Electronics Technicians)**. All steps must be performed in the exact order in which they are written. Furthermore, they must be performed exactly as written with no alteration or skipping of steps.

13. **END OF PROCEDURE 1 - PROCEED TO PROCEDURE 2.**

## Procedure 2 - CRS Software Installation Procedure

### PROCEDURE

Preparation for installation from CD-ROM involves the following steps:

- a. select the **Exit to Unix** option from the **System** menu item;
- b. ensure that all processors (MPs and FEPs) on which software is to be installed are powered on and on-line (accessible over the local area network);
- c. From OMP, login as **root**, then double-click the **Admin\_Tools** icon in the **UnixWare Desktop - root** window, and double-click the **App\_Installer** icon;
- d. insert the CD-ROM into the CD drive of the selected installation main processor, then select **CD-ROM\_1** from the "pop-up" menu following the "Install from:" prompt in the upper half of the **Application Installer** window pane;
- e. after the CRS application package icons (**crsopsais**, **crsopsfpm** and **crsopsmppm**) are displayed immediately below the "Install from" prompt, select **crsopsais**, and click on **Install** (Note: **crsopsfpm** and **crsopsmppm** can only be installed indirectly through **crsopsais**);
- f. respond to the prompts displayed in the **Add Application: crsopsais** and **auto\_install** terminal windows.

The **Add Application: crsopsais** window and the **auto\_install** window are used to display the installation activity log as well as the prompts to the installation operator. The log information and the prompt sequences vary depending on the responses to the prompts.

Note: The installation prompts that follow assume a typical configuration (OMP, 5MP, 1FEP, 4BKUP).

### Installation Prompts

The prompt sequence begins with **prompt p1**. Unless otherwise indicated prompts occur in sequence (**p1 ... p11**).

**p1**     *Build [version] installation options*

- a) all processors (OMP 5MP 1FEP 4BKUP | 5MP OMP 1FEP 4BKUP)
- f) front-end processors (1FEP 4BKUP)
- m) main processors (OMP 5MP | 5MP OMP)

s) specific processor

Make sure that installation default option a is selected to load the software on all processors.

**p2** *Clean out (reset) log files?* (default: y)

An affirmative (y) response to this prompt will result in the resetting of all the CRS application software log files on all the processors in the configuration. A negative response (n) will result in no changes to the CRS log files on any of the processors. **It is normally good practice to clean the log files when a new software release is installed.**

**p3** *Change CRS system date and time?* (default: n)

An affirmative (y) response to this prompt will result in a sequence of additional prompts beginning with **p4**. The entered date will be used to change the date and time on all the processors. A negative response (n) will result in no changes to the current system date and time (displayed prior to the prompt), and the next prompt will be **p9**.

**p4** *Enter year (e.g., 1997):*

**p5** *Enter month (e.g., 01<=mm<=12):*

**p6** *Enter day (e.g., 01<=dd<=31):*

**p7** *Enter hour (e.g., 00<=HH<23):*

**p8** *Enter minute (e.g., 00=MM<=59):*

**p9** *Build [version] will be installed on the following processors:  
[OMP / 5MP / 1FEP / 4BKUP ...]  
with the following options:*

*Detected configuration is typical*

*[CRS master (and X-window client) [will be | remains ] OMP / 5MP]*

*[OMP / 5MP will be shutdown at the end of installation ]*

*[CRS shadow (and X-window server) [will be | remains ]OMP / 5MP]*

*[OMP / 5MP will be shutdown at the end of installation ]*

*[CRS log files will be cleaned (reset) on: [5MP OMP 1FEP 4BKUP]]*

*Proceed with Build [version] installation?* (default: y)

An affirmative (y) response to this prompt will result in the installation of the CRS application software with the appropriate constraints indicated. A negative (n) response

results in the display of a **Message** dialog window with the text "User does not have permission to install packages pkgadd". OK terminates the installation.

If it is determined that the IP addresses in /etc/inet/hosts (preinstalled by the CRS software contractor at the factory) are not correct, then prompt **p10** is displayed.

**p10**    *Enter your CRS site ID (e.g., DLH or NRC1):*

Enter the correct local site ID. Entry of a valid site ID results in a comparison of a set of expected IP addresses and the actual IP addresses in /etc/inet/hosts on all accessible (online) CRS processors. Differences between expected and actual IP addresses are displayed and logged. Entry of no response or an invalid site ID results in prompt **p11**.

**p11**    *Display a list of all valid CRS site IDs? (default: y)*

An affirmative (y) response to this prompt will result in the display of a list of all valid CRS site IDs and associated site locations (city, state, region). The list is presented in "pages" via the UNIX utility "pg". The RETURN key or '+' displays the next page, the '-' key displays the previous page, and 'q' results in the display of prompt **p10**. A negative (n) response results in the display of prompt **p10**.

Note: The master and shadow states that exist on the main processors at the time of installation are preserved if possible; otherwise, the installation scripts determine new main processor states based on the old main processor states, whether software is being installed on them, and whether they are online.

## **Post-Installation Caveats and Conventions**

Software is installed to CRS processors in a predefined sequence (MPs, then FEPs). When the software has successfully been installed on a processor other than the installation MP, that processor is automatically shut down (and restarted). Because the front-end processors share a single console (monitor and keyboard), **only one of the FEPS** (the one to which the console is physically connected through the switch box) **starts itself automatically** after the shutdown. The startup sequence on a FEP that is not connected to a keyboard pauses while waiting for an F1 key to be struck at the keyboard. To complete the startup sequence for a FEP that is “stuck” waiting for the F1 key to be struck, **connect (via the switch box) the keyboard to the FEP, verify that it is waiting (prompt message on the monitor), and strike the F1 key.**

While the installation is in progress many messages are displayed in the **auto\_install** log window on the console. Messages are of three types - ERROR, INFO and WARNING. Most of these messages are also written to the installation log file (/crs/install.log). All ERROR and WARNING messages from the installation log file are displayed in the **auto\_install** log window at the completion of installation in accordance with the following template:

### Installation ERRORS

[ERROR messages from the installation log file | None ]

[Refer to the installation procedures for further assistance]

### Installation WARNINGS

[WARNING messages from the installation log file | None]

[Refer to the installation procedures for further assistance]

NOTE: Shutting down the installation MP [0MP | 5MP] is an option.

It is not necessary to shut down after software has been installed on a FEP. A shut down is RECOMMENDED after CRS software has been installed on an MP to ensure that the installation MP [0MP | 5MP] and the other MP [0MP | 5MP] are functionally synchronized as CRS master and CRS shadow.

Continue [0MP | 5MP] shutdown? (Default: y)

If there are no ERROR or WARNING messages (i.e., “None”), the reference to the installation procedures is not displayed. The **auto\_install** log window is displayed until the operator responds to the prompt. An affirmative response results in the automatic shut down and restart of the installation MP. A negative response results in the disappearance of the prompt and the



**auto\_install** log window unless the state (master or shadow) of the installation main processor has been changed, in which case the prompt “shutting down to synchronize MP functionality” informs the operator that the installation MP will be shutdown regardless (shutdown occurs when the operator strikes any key).

**ERROR and WARNING messages must be resolved before attempting to start the system!**

### **Logging and the installation log file**

Results of the installation are logged to the **auto\_install** window and to a log file (**/crs/install.log**). Logged messages are of three types - ERROR, INFO and WARNING. INFO messages can be ignored. ERROR and WARNING messages are summarized in the **auto\_install** window at the completion of the installation, and they must be resolved before the system is started.

All logged messages have the following format:

date: script: type: [...] on PROC

where

date = DDD MMM dd hh:mm:ss LLL YYYY

DDD day of week abbreviation (e.g., Thu = Thursday)  
MMM month of year abbreviation (e.g., Sep=September)  
dd numeric day of month (1<dd<31)  
hh hour of the day in military format (00<hh<23)  
mm minute of the hour (00<mm<59)  
ss second of the minute (00<ss<59)  
LLL local standard time (e.g., PDT = Pacific Daylight Time)  
YYYY calendar year

script = name of shell script in which message is generated

type = ERROR | INFO | WARNING

[...] = text describing a condition of the type indicated

PROC = processor (e.g., 0MP, 5MP, 3FEP, 4BKUP) on which condition described by the text occurred

**END OF PROCEDURE 2 - PROCEED TO PROCEDURE 3.**

### Procedure 3 - Run ADD\_SPA Utility

#### **PROCEDURE**

1. The CRS Login screen is displayed. Login to the CRS main window as ADMIN.
2. Make sure that the CRS application is not running.
3. On a blank part of the desktop click and hold down the left mouse button to pop up the ***CRS\_Uilities*** menu.
4. Select the first option '***XCRS\_SITE Utility***' and release the button.
5. Select the operational ASCII database file, click on '***Select ASCII Site Setup***'.
6. Select the operational ASCII file by double clicking on its name.
7. Start the Add Spanish utility, click on the fifth button from the top, '***Add Spanish***'.
8. Toggle Spanish for a transmitter, type its: ***number Enter***  
  
A toggle shows if the transmitter will (SPA(YES)) or will not (NULL(NO)) use Spanish.
9. With all the transmitters set, exit by typing: ***0 Enter***
10. A message type menu is displayed.
  - a. If the desired message type is not listed, display the next page of message types by entering: ***Space Enter***
  - b. To go back one page, enter: ***Enter***
  - c. If the message type is listed, type its number: ***number Enter***

If the message type language is Spanish, a warning message is displayed:

**Can not assign trailer to Spanish message type.**

The message type menu will be displayed again.

Otherwise, the following is returned:

**Selected "CCCNNNXXX".**

**Do you want to preselect the “NNN” trailer if it is present? (Y/n)**

d. If you want the program to find the matching trailer, enter: **y Enter**

If the corresponding trailer for the message is found, the following is returned:

**Selected ‘NNN’ ‘Watch/Warning Type in Spanish’**

The program jumps to step 12 to select the trailer mode.

If the corresponding trailer for the message is not found, the following error message is returned:

**No matching trailer found.**

The program jumps to step 11 to allow the user to select the trailer manually.

If you want to select the trailer yourself, enter: **n Enter**

The program jumps to step 11 to allow the user to select the trailer manually.

e. This step may be performed when the user wants to add more trailers. Step 13d below allows the user to jump back to step 10 for this purpose. If a message type already has a trailer, it’s name will be displayed in the menu line. To delete this trailer, enter its number:

**number Enter**

Continue with step 10 to delete other existing trailers and/or add new trailers as necessary.

11. A Spanish Trailer Component menu is displayed.

a. If the desired trailer is not listed, display the next page type: **Space Enter**

b. To go back one page, enter: **Enter**

c. Select a trailer, enter its: **number Enter**

d. If the wrong number is entered, enter the correct one: **number Enter**

e. Continue with: **0 Enter**

f. To exit the program, enter: **a Enter**

12. A mode menu is displayed.
- a. If the trailer is to be broadcast just *once* the first time that the message is broadcast, type: ***1 Enter***
  - b. If the trailer is *always* to be broadcast, type: ***2 Enter***
  - c. To exit the program, enter: ***0 Enter***

13. A message will be displayed showing which trailer will be added:

**Adding trailer for CCCNNNXXX, name TTT, mode n in 'FILE.ASC'.  
Is this what you want? (Y/no(edit)/abort)**

- a. If you want to exit the program and discard any changes, enter: ***a Enter***
- b. If you need to change a trailer option, enter: ***n Enter***

Repeat steps ***10 through 13b*** to reconfigure the trailer.

- c. If the trailer for the message type is correct, enter: ***y Enter***

The following message will be displayed:

**Would you like to add more trailers (n/Y)?**

- d. To select more trailers, enter: ***y Enter***

***Repeat Steps 10 through 13d to configure another trailer.***

- e. When finished, type: ***n Enter***

The XCRS\_Site window will return.

14. The following message will be displayed (please see note below):

**Ready for FULL RECOMPILE of ASCII file for Spanish. Continue?**

If you want to proceed, click '***Ok***'

If you want to cancel, click '***Cancel***'.

The Add Spanish utility preselects the '*Initialize System Configuration and Database*' to ensure that the entire system database and configuration will be replaced.

**NOTE: If no changes to the transmitters were made using the Add Spanish utility, the option to fully recompile the ASCII file will not appear. The recompile option must be selected manually.**

15. If you selected the *Ok* button, you will see the “working” message and the “wristwatch” will appear. Many messages will scroll by. If it is a successful compilation, the following will be the last message displayed :

***Finished with site configure***

You may also see a the following warning message:

***Warning:UX22:Failed to shadow Help\_About file to 5MP!***

This is not a serious problem and may be ignored.

If the compilation is not successful, an error message will explain the problem. The error must be fixed and this step repeated.

16. Exit the CRS-SITE utility, click on: ***Exit***
17. Follow your site’s operational procedures for restoring the Word Pronunciation Dictionary files. If you are unsure about this, read pages 7-11 through 7-13 of the CRS System Administration Manual, which explain what needs to be recovered and the importance of doing so. Appendix M, User Dictionary Backup and Recovery Script Files, of the same document contains sample script files that may be used to back up and recover the dictionary files.
18. **END OF PROCEDURE 3 - PROCEED TO PROCEDURE 4.**

## Procedure 4 - Enable LP Services

### **PROCEDURE**

- 1) Click on the Maintenance menu and select Unix Shell.
- 2) Log in as root, enter **su** and enter the password.
- 3) Start the print monitor program: **/usr/X/bin/xprmon &**
- 4) Verify that the printer status is **!!! Down !!**
- 5) Verify that the fifth function button from the left is labeled **Enable Queue**, which indicates that the queue is currently disabled.
- 6) Click the **Enable Queue** function button to enable the queue.
- 7) Verify that the printer status becomes **\*\*\* Ready \*\***. If the status is **?? Unknown ??**, click the **Enable Queue** function button again to change the printer status to **!!! Down !!**. Click it again and verify that the status is **\*\*\* Ready \*\***.
- 8) Verify that the fifth function button from the left is now labeled **Disable Queue**, which indicates that the queue is currently enabled and by clicking it, the queue will become disabled.
- 9) Leave the printer in the **\*\*\* Ready \*\*** state.
- 10) Keep entering exit until you Log out and the UNIX shell is closed.
- 11) **END OF PROCEDURE 4 - PROCEED TO PROCEDURE 5.**

## Procedure 5 - Activate Operator Notification of New Error Message 254

### PROCEDURE

- 1) From the CRS Graphical User Interface (GUI), click on **System** and then click on **Start System**. The **Start CRS** window will then be presented. Click on **OK** button to start the CRS application. Wait about 5 minutes until all System State indicators are up and all FEPs are operational.
- 2) Click on **Maintenance** and then click on **Error Message Format**. The **Error Message Format** window will be displayed.
- 3) Click in the box to the right of the **Find** button at the lower right of the window. Enter **254** in the box.
- 4) Click on the **Find** button. **Error 254 Message(s) for recovery:** will be highlighted in black.
- 5) Click in the circle next to **Medium Priority** and click in the circle next to **Operator Notification**. This will force Error 254 to appear as a medium priority (color is yellow) message in the **Alert Monitor** window.
- 6) Click on the **Save** hot key. The following message will appear: **Requesting Error Message Format Update** followed by **Error Message Format Update**.
- 7) Click on **Exit** hot key to exit the **Error Message Format** window.

***WARNING: If for any reason the Build 6.0 software is reloaded from the installation CD onto 0MP, this error message must be enabled again by the operator.***

***END OF PROCEDURE 5 - INSTALLATION COMPLETED***